HOW TO GROW PLUMP.

Some Pointers For Those Who Would Increase Their Weight.

If you want to be fat and of a merry countenance, says the Philadelphia Inquirer, read the suggestions of a wise man as they are given here:

In the morn, he says, you should drink a cup of chocolate or cocoa lying in bed before you rise for the day. Then for breakfast eat eggs, a cutlet or chops and plenty of fruit.

With your dinner be careful to take plenty of vegetables, cauliflower, macaroni, asparagus, potatoes by preference, and try to avoid pickles and any form of acid. Eat well of some dessert that contains plenty of sugar, eggs and milk.

All manner of foods that have starch and sugar are necessarily fattening if they can be digested. If this diet is followed, there is promise of many additional pounds for the subject.

Milk has great value, and if the stomach can stand it two quarts a day may be taken with advantage. Lime-water mixed with it makes it more easy of assimilation to most people. The best way is to drink milk slowly. Taken hot just before going to bed, it promotes restful sleep and so greatly helps the thin one to "lay on" flesh.

Cold baths are very thinning in their tendency and should be avoided by the would be plump person. Of course, violent or long sustained exercise will keep one slender in spite of all precautions. Never try to eat more than you have an appetite for, as merely loading the stomach does not mean that the food will ever be turned into good, useful tissue.

And constant worry is to be avoided, for irritation of the nerves would render useless even the most carefully selected diet.

How to Clean E... ...ssed Leather.

Embossed leather can be cleaned with turpentine applied with a soft cloth. This removes the stains, but slightly stiffens the leather, which must be made pliable again by rubbing briskly with crude oil. Use a very little oil and go over the piece with one of the clean cloths on which no oil has been put, as care must be taken to get all the surface grease off to prevent soiling the clothes.

How to Make Iced Chocolate.

Chocolate is so generally served hot that the cool summer drink is far less familiar than it should be. When carefully made and served, it is delicious as well as wholesome and can be safely recommended for delicate children and elderly people. Put one ounce of unsweetened chocolate into a saucepan and pour on it gradually one pint of boiling water, stirring all the time. Put the saucepan on the fire and stir until the chocolate is all dissolved. Then add a pint of granulated sugar and stir until it begins to boil. Cook for three minutes longer without stirring and then strain and cool. Add one teaspoonful of vanilla extract, bottle and store in a cool place. When needed, put two tablespoonfuls of crushed ice in a tumbler and add two tablespoonfuls of the chocolate sirup, three tablespoonfuls of whipped cream, one gill of milk and half a gill of carbonic or apollinaris water. Stir thoroughly before drinking.

How to Make Celery Vinegar.

Celery vinegar is useful for flavoring and may be made of pieces of celery covered with some pure cider vinegar or the celery seeds may be used. If the seeds are to be used, cover one ounce of celery seed with one quart of pure cider vinegar, and let it stand two weeks, shaking it every day. It will then be ready for use.

How to Cook Watercress.

It is possible to cook watercress as spinach is prepared, says the New York Evening Post. The cress should be picked over and the coarse part of the stems removed with the wilted or discolored leaves. Throw into a saucepan filled with boiling water and boil for fifteen or twenty minutes or until tender, adding a little salt to the water toward the latter part of the cooking. Remove to a colander, press out the water with the back of a large wooden spoon, return to the saucepan and toss in lightly with a fork a teaspoonful of butter. Arrange in a mound and serve with sliced hard boiled eggs.

How to Clean Windows.

To clean windows, dissolve a little soda in water, dip into it a clean sponge and with it wash over the glass. Wipe and polish with clean, dry cloths. Old cloths should be saved for window cleaning, for the softer they are the better. Soft paper makes an excellent substitute for cloths for window cleaning.

How to Perfume Your Hair.

To perfume the hair, get a piece of water lily incense, which you can buy at any Japanese or Turkish store. Light it, and as the fumes arise shake the hair over it until the incense has all burned out. This fragrance will last a long time in the hair and is only a suggestion of perfume. Heavily perfumed locks are in bad taste, says the New York Press. Cheap cologne or perfume is bad for the hair. A little dash of violet toilet water will not hurt the hair and will give it a golden cast in the sunlight.

OUR NATIVE TREES

... By ...

THOMAS H. MACBRIDE, Ph. D.,
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II.—The Fruits of Trees.

In our northern woods all growth is conditioned by our alternating seasons. Growth in plants, as we know, begins or is renewed in spring and ceases at the approach of fall or winter. Renewal, apart now from the agency of seeds, comes about in various ways—by tubers, bulbs, by underground roots and stems. In the tree the renewal results, first, from the unfolding of buds formed in the axils of last year's leaves and all ready by expansion to furnish the foliage and twigs of the season, and, second, from the cambium and its associated living tissues, described in the preceding chapter. The buds contain at base and throughout a very great number of undifferentiated cells—like cambium cells, in fact—capable of growing so as to form different structures and organs. These carry forward the growth of the tree in height. The twigs stretch out from buds. All development upward takes origin in buds. In this respect, however, the development of a bud on a tree is different in nowise from the unfolding of the bud of the meanest weed stretching up to form its evanescent stem. In all the higher plants all length increase proceeds from buds. But the second factor in the tree's renewal is, as has been said, the peculiar characteristic of the tree, and to it we must now again give heed.

In spring no sooner the buds begin to swell and grow than the cambium and its kindred tissues likewise resume activity. The cambium in particular takes up its work just where it stopped the fall before, but under very different conditions. In autumn work is suspended, often suddenly, in the full tide of the tree's activity. Ever since June at least the foliage of the tree has been doing fullest duty. The roots have been equally vigorous, furnishing every active cell throughout the tree abundant material with which to build. The result is that the work done by the tree in the later months of summer is its best work. Then it is the cambium is richest, builds more bark and more wood. The wood also is better. The cells are not only much more numerous, but they are smaller, and their walls are very much thicker. Growing, as they do, under a constantly strengthening sheath of cortical tissues, the new wood cells are under ever increasing pressure. They are in most cases closely compacted together. There are no large vessels such as in early spring were especially needful to carry the vast amount of water demanded by myriad forming leaves. And now, when frost, shortening days and other autumnal conditions finally supervene, our tree is really at its best. But the north wind sounds retreat. The leaves fall; the naked buds appear; the ground freezes; the cambium rests. When spring returns, everything has changed. The bark has been checked and loosened by the storms and frosts of winter. The roots are fairly active, it is true, often more or less completely protected from the frost, but there are no leaves to furnish forth supplies of food for any active cells. Resumed activity depends for days entirely upon supplies left over from the year before, stored largely as starch, in the twigs and at their bases and in the medullary rays, to be further on described. As a consequence, most trees, not all, show in their structure the result of these changed conditions. One may see it on the smooth cut end of any stick or piece of wood.

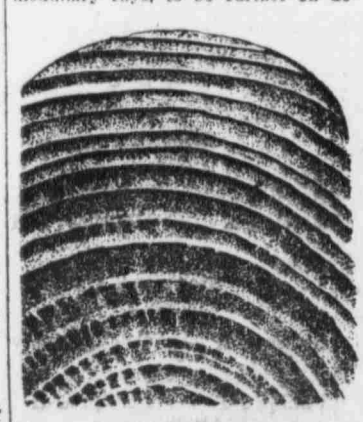

Fig. 1.—Transverse Section of Exogenous Woody Stem.

The paler, whiter lines mark the places of earlier activity. Just outside each paler ring is a darker, denser line, a section of the autumn wood. Note how these succeed each other alternately to the limits of our section. It will be observed that growth seems to cease abruptly. It probably begins again quite vigorously and suddenly as the trees are roused by the warm suns of spring, but the transition from vernal wood to autumnal wood is evidently slow. In Germany in the spruce forests some effort has been made to restrain, if possible, the too early resumption of the work in the trees in spring, with the hope of securing a greater proportion of autumnal wood. Such experiments so far have proved instructive, but not otherwise of practical value.

The radiating lines in our figure show the place and arrangement of the medullary rays mentioned in the previous article. These serve a double purpose. They keep the living elements of the stem, both bark and wood, in direct communication with each other and so make possible the nutrition of all the cells and tissues. Besides, they serve mechanically to bind in one the otherwise easily separable layers of the tree's increase. If the vertical structure of the tree may be esteemed the warp, the medullary rays make up the woof to bind or weave in one the tissues of our plant. This is beautifully shown in Fig. 2, which is, of course, diagrammatic, but is nevertheless entirely truthful in the impression it conveys.

Notice that the bark has its rays as well as the wood and that the rays of the two structures are continuous. We must not forget that the bark is not a protective structure only. It is also nutritive, brings nutrition, especially from the leaves, and, largely by the rays, as just remarked, distributes to

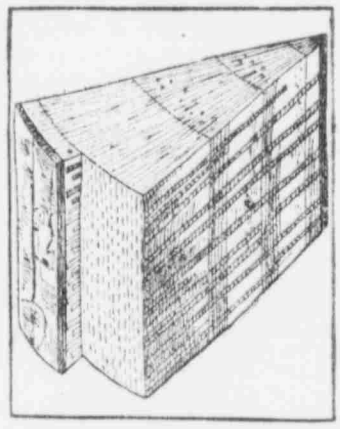

Fig. 2.—Diagrammatic View of Block From a Tree.

the growing wood its food supply. In the figure it will be observed that the earliest, longest rays connect directly with the medulla. Others as the demand increases are introduced in the succeeding years. The resin which is so characteristic of most coniferous trees, as pines, is found in intercellular spaces and is a kind of waste product in the economy of the tree.

Such a structure as that just described can grow in one direction only—that is, in thickness. No tree stem lengthens. Wood once formed cannot stretch or be extended. A branch once pushed forth remains always at the same level. The reason why trees seem to carry up their branches will be shown later on.

But we are now in a position to discuss the age of trees and may conveniently make this the topic of the next chapter.

The Curse of a Treeless Region.

Any one who has traveled through the comparatively treeless countries around the Mediterranean, such as Spain, Sicily, Greece, northern Africa and large portions of Italy, must fervently pray that our own country may be preserved from so dismal a fate, says President Charles W. Eliot. It is not the loss of the forests only that is to be dreaded, but the loss of agricultural regions now fertile and populous, which may be desolated by the floods that rush down from bare hills and mountains, bringing with them vast quantities of sand and gravel to be spread over the lowlands. Tunis was once one of the richest granaries of the Roman empire. It now yields a scanty support for a sparse and semibarbarous population. The whole region roundabout is treeless. The care of the national forests is a provision for future generations, for the permanence over vast areas of our country of the great industries of agriculture and mining, upon which the prosperity of the country ultimately depends. A good forest administration would soon support itself, but it should be organized in the interests of the whole country, no matter what its cost.—Atlantic Monthly.

How to Restore Faded Writing.

Brush the writing over with a feather or a camel's hair brush dipped in tincture of nutgalls. This easy process will bring out the manuscript as clearly as if newly written.

VALDOSTA SOUTHERN RAILWAY.

SCHEDULE NO. 3.

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READ DOWN.				READ UP.		
No. 5.	No. 3.	No. 1.	STATIONS.	No. 2.	No. 4.	No. 6.
PASS Sn'd'y Only.	PASS Daily Except Sn'dy	PASS Daily Except Su'nd		PASS Daily Except Sn'dy.	PASS Daily Except Su'dy.	PASS Sn'dy Only
P. M.	P. M	A. M.		A. M.	P. M.	A. M.
4 00	4 15	9 25	Leave.....Valdosta.....Arrive	8 30.	3 15	9 15
			.....Dees.....			
4 25	4 40	9 50	.....Briggston.....	8 00	2 45	8 45
4 30	4 50	9 55	.....Clyattville.....	7 52	2 37	8 40
			.....Wallberg.....			
4 45	5 15	10 10	.....Olympia.....	7 38	2 25	8 25
			.....Udora.....			
5 00	5 40	10 25	.....Pinetta.....	7 10	2 00	8 05
			.....Cowart's Mill.....			
5 10	5 50	10 35	.....Hanson.....	6 40	1 50	7 55
			.....Calhoun.....			
5 30	6 15	11 00	Arrive.....Madison.....Leave	6 15	1 30	7 30
P. M.	P. M.	A. M.		A. M	P. M.	A. M.

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J. M. WILKINSON, President.

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